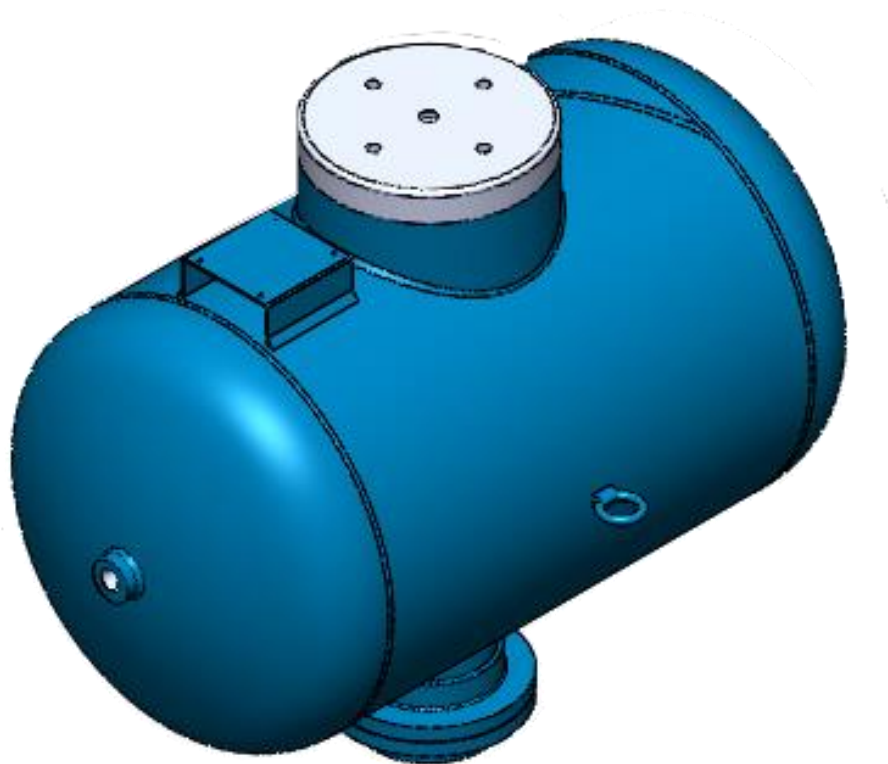


Installation and Maintenance Manual for MIDES® Air Blaster

MODELS 6TMM and 6AT



MIDES – REV. 2018



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1. INTRODUCTION

The MIDES® Air Blaster is a system to help resolve problems involving blockage caused by accumulation and aggregation of materials in silos, hoppers, chutes, pipes, combustion air pre-heaters, truck skips and other sites.

The MIDES® Air Blaster instantaneously (+/- 10 milliseconds) expels a compressed air load directed at critical areas where the material tends to accumulate. The released energy ($E_c = 115 \text{ J}$) is enough to clear the passageway and dislodge the material from the walls without entailing any harmful effects on the installation, thereby providing a continuous discharge flow while removing material dead spots.

2. TECHNICAL DATA OF THE MIDES® AIR BLASTER MODELS (6TMM/6AT)

MODELS	DMA	DMB	DMC	DMD	DME	DMF	DMG
Capacity	12 l	25 l	50 l	75 l	100 l	150 l	200 l
Weight	18 kg	25 kg	50.16 kg	56.19 kg	62.54 kg	75.23 kg	87.60 kg
Discharge pipe thread	2" BSP	2" BSP	4" BSP	4" BSP	4" BSP	4" BSP	4" BSP

Note: MIDES 12-litre (DMA) and 25-litre (DMB) Air Blasters come with a factory-installed MIDES® 6AT Valve. All other models come with the MIDES® 7AT Valve.

CONSTRUCTIVE FORM OF THE VESSEL	6TMM/ 6AT
Vessel Classification (NR-13)	CAT. "V" – CLASS "C" – GROUP 5
Regulatory and Constructive Standards	NR-13 / ANSI / ASME BPV VIII-1 (2010 edition).
Max./Min. temperature Outdoor environment	180 °C/-30 °C
Hydrostatic Test Pressure (HTP)	10.4 bar
Max. Allowable Working Pressure (MAWP)	8.0 bar
Recommended Working Pressure	Min.: 5.5 bar / Max.: 7.0 bar
Container refill time	Standard time 45 seconds at 6.0 bar
Residual pressure following discharge	< 0.5 bar
Stored air explosion time	< 0.10 sec
Compressed air quality	Clean industrial air
Paint	MIDES Standard – POP 07



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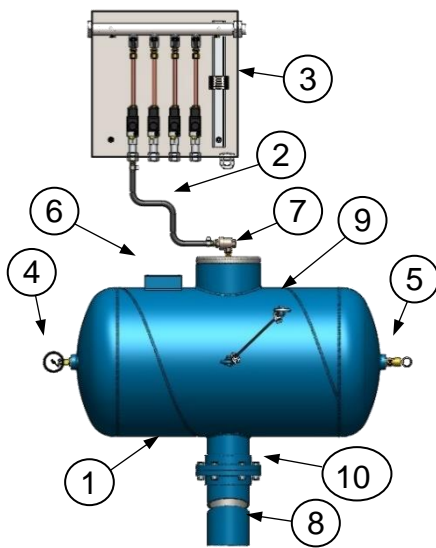


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2.1 SUPPLY DIAGRAM



- (1) – MIDES[®] Air Blaster (Vessel, 6TMM or 6AT Valve, Joint and Adhesives, all come mounted).
- (2) – Rubber Hose $\varnothing 3/8''$ - (maximum L) = 8m. (Max.) per blaster.
- (3) – Electro/Pneumatic Triggering Panel with 3/2 -way Valves and ready-mounted Long-Assembly Kits.
- (4) – MIDES Pressure Gauge – 0 - 200 psi (0 to 10 bar).
- (5) – MIDES[®] Safety Valve.
- (6) – Identification and registration plate.
- (7) – MIDES[®] 3/8'' Quick Exhaust Valve.
- (8) – Discharge Pipe and Diffusers.
- (9) – Pre-mounted Suspension and Safety Cable.
- (10) – 4'' Threaded Joint (joining the vessel to the pipe).

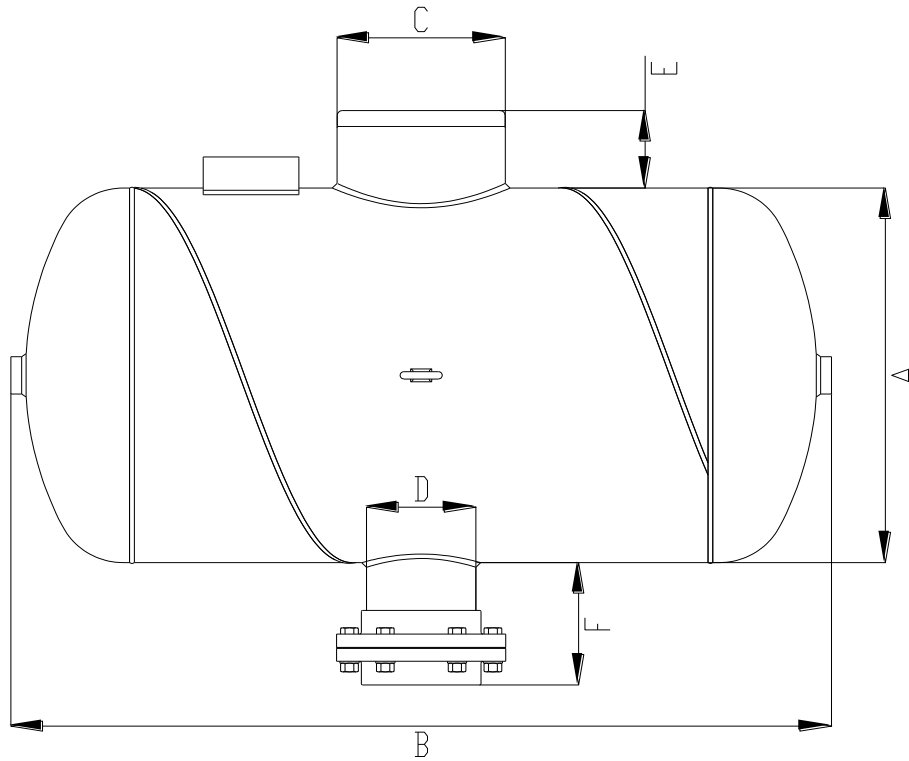
NOTES:

- 3/2-way valves for controlling and triggering MIDES[®] Air Blasters, normally open "NA", $1/4''$ NPT threads, 110 or 220 Vca - 60 / 50 Hz solenoid drive (Possibly 24 Vca or 48 Vca) and spring return. Minimum flow coefficient of 1000 litres/minute.

- Compressed air feeder pipes leading to blasters with the 6AT system: Rubber hoses or metal pipes, $\varnothing 3/8''$ x 10,000 mm (maximum) and compressed air feed connections from the pneumatic control to the MIDES[®] pieces of equipment.

REM: The standard MIDES[®] supply consists of rubber hoses with a nylon mesh and 3/8'' diameter. Pipes and hoses of different diameters may not be used together.

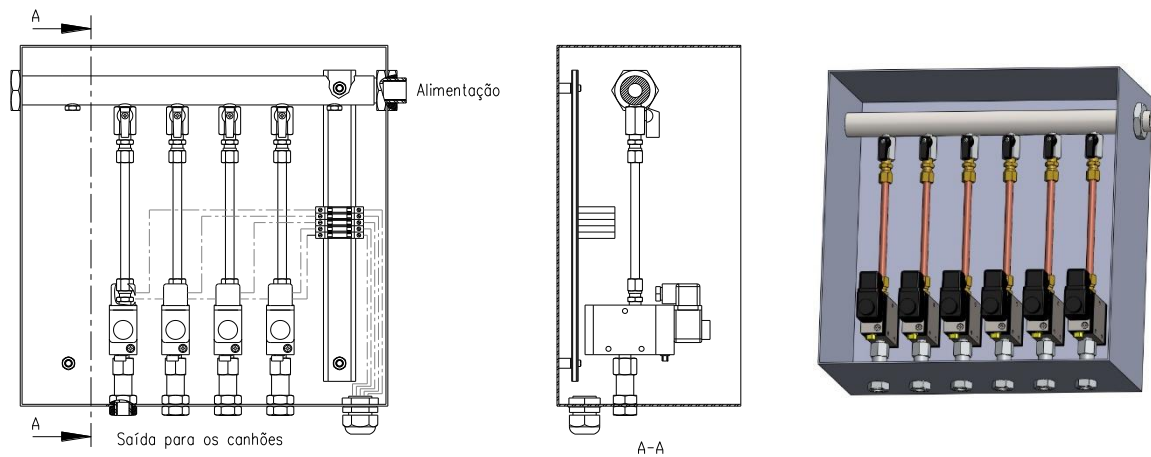
2.2 DIMENSIONS



DIMENSÕES GERAIS MODELOS 6TMM / 6AT

MODELO:	CAPACIDADE (lts):	PESO (kg):	PMTA (bar):	MDMT (°C):	PTP (bar):	A (mm):	B (mm):	C (mm):	D (mm):	E (mm):	F (mm):
DMA:	12	30,8	8	-8	10	273	409,2	176	60,3	73,7	128,9
DMB:	25	35,06	8	-8	10	273	609,2	176	60,3	73,7	128,9
DMC:	50	43,31	8	-8	10	273	899,2	176	114,3	73,7	134,4
DMD:	75	50,7	8	-8	10	406,4	737,3	176	114,3	84	132,7
DME:	100	54,5	8	-8	10	406,4	857,3	176	114,3	84	132,7
DMF:	150	67,2	8	-8	10	406,4	1257,3	176	114,3	84	132,7
DMG:	200	76,7	8	-8	10	406,4	1557,3	176	114,3	84	132,7
CÓDIGO DE PROJETO:	ASME BPVC Sec. VIII Div. 1, Sec. II Part D, Sec. IX, Ed. 2010 2011a Addenda										
CLASSE:	C	CATEGORIA:	V	NR-13							
GRUPO:	5										

2.3 PNEUMATIC CONTROL PANEL



Every pneumatic control valve, electrical control wiring and the main air infeed pipes will be mounted at a site located far from and protected against points comprising aggressive agents. The pneumatic control panels and the air blasters will be interconnected using hoses and/or rigid pipes.

This panel is recommended anywhere, especially where the environment comprises agents that are aggressive to MIDES[®] Air Blaster control panel. This panel's capacity enables 06 3/2-way valves.

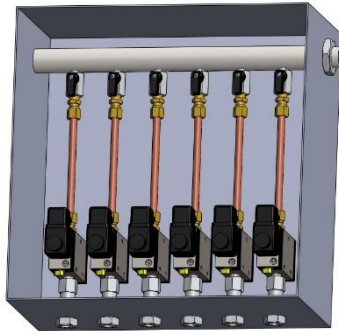
Note: The pipes can interconnect the Electro/Pneumatic panel to the MIDES[®] Air Blaster using rigid pipes (normally galvanised or copper pipes), while keeping to the maximum recommended distance (10 metres) and the maximum recommended diameter ($\varnothing 3/8''$). In this case, the customer shall be responsible for providing the proper supply.

2.3.1. TECHNICAL FEATURES

⇒ Panel:

RR010 panel box, 400x400x200, 50-micron polyester/epoxy finish, RAL 7032, insulation class IP65, equipped with:

- Compressed air distributor for mounting 1 to 6 3/2-way “NA” pneumatic control valves (110 or 220 Vca or 24 Vcc).
- Individual ball valve per $\varnothing\frac{1}{4}$ ” valve.



⇒ Control valves:

3/2-way, $\frac{1}{4}$ ” NPT control valve, normally open, solenoid drive of 24/48/110/220 Vca at 50 or 60 Hz and spring return, equipped with:

- Control hoses or pipes, interconnecting the panel to the pieces of equipment.
- Valve with a manual actuator for individual testing.
- Reel protection with IP65 connector
- Control voltage: 110 or 220 Vca – 50 to 60 Hz – Special 48 or 24 Vcc.

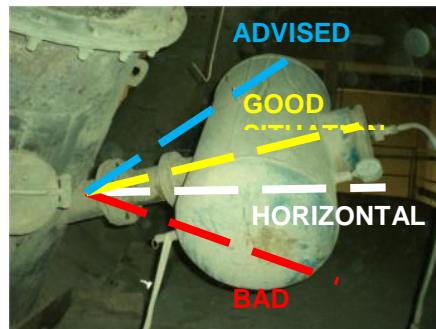


3. INSTALLATION

The installation project show every mounting detail regarding the blasters and accessories, where the following points shall be observed.

3.1 DISCHARGE PIPE

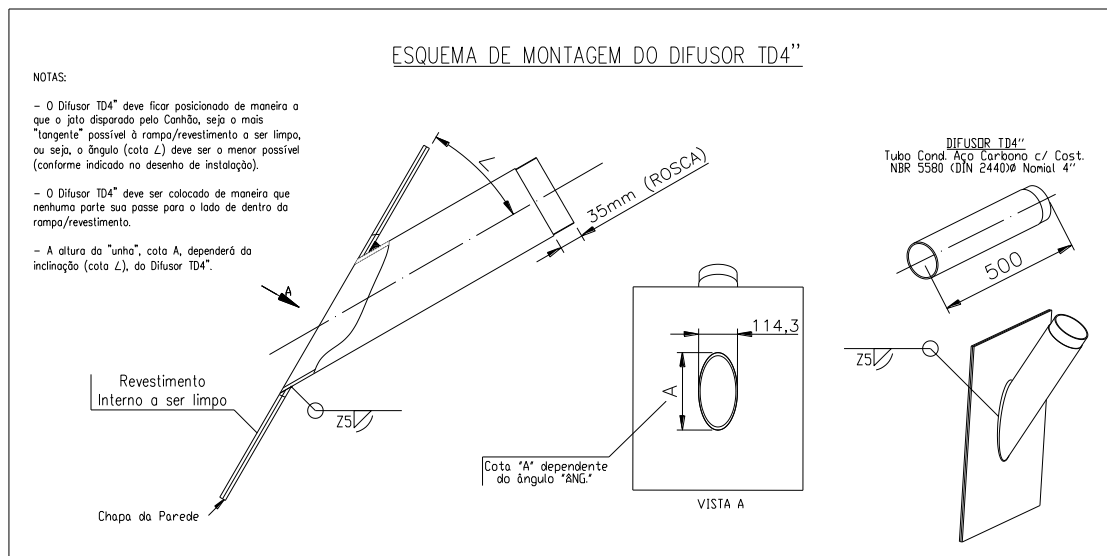
The discharge pipe shall be as short as possible (maximum 500 mm, as provided with the MIDES[®] Air Blaster) and **stick to the direction and angle mentioned in the project**. Always positive or null slope, **NEVER installing with a negative slope**.



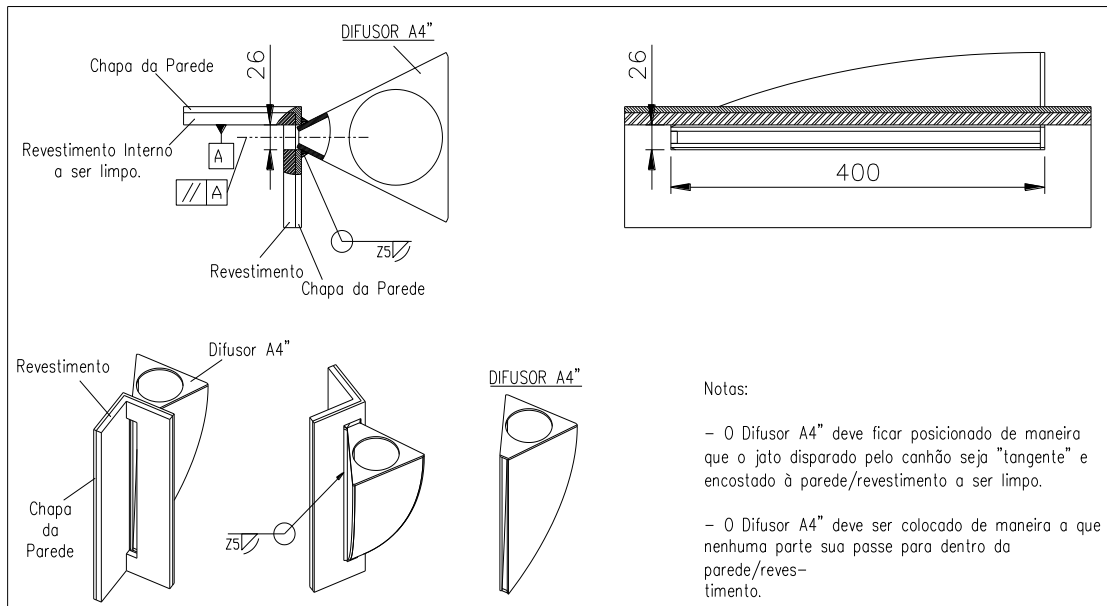
3.2 MIDES[®] NOZZLE

In the case of diffusers, these need to be at the height shown in the project, with its direction tangent to the wall to be cleaned. The diffusers shall be installed as per the instruction below:

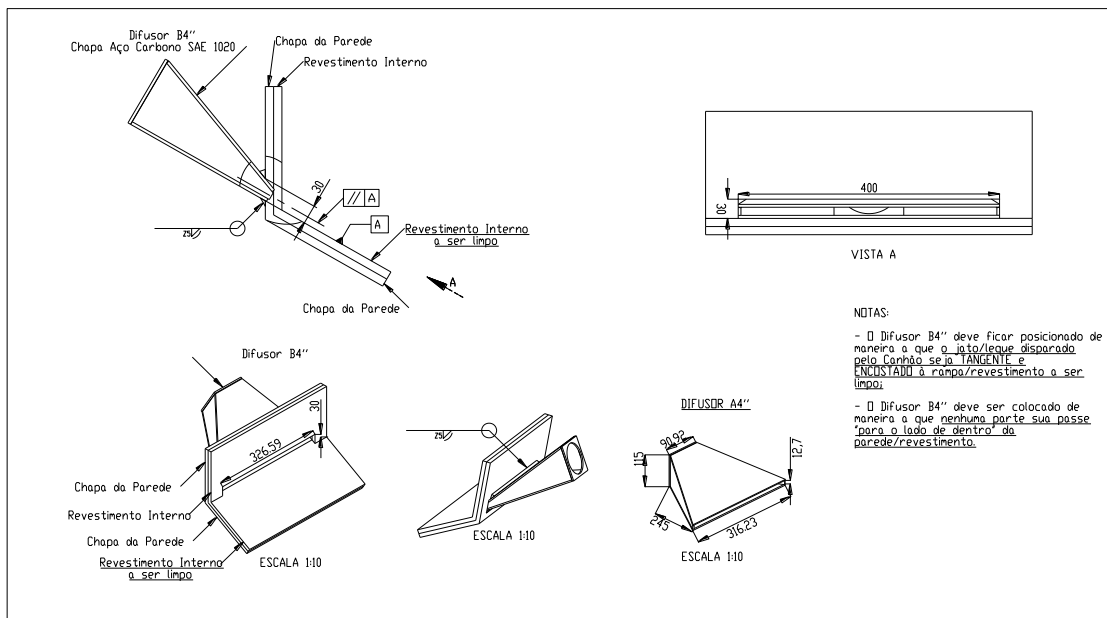
3.2.1 MIDES[®] TD4" NOZZLE



3.2.2 MIDES[®] A4" NOZZLE



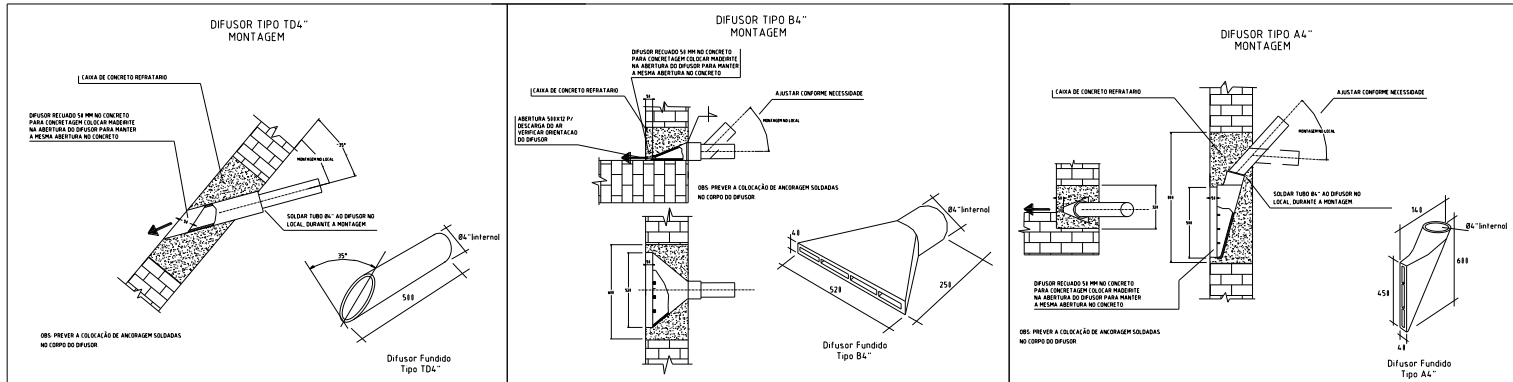
3.2.3 MIDES[®] B4" NOZZLE



3.2.4 SPECIAL NOZZLE

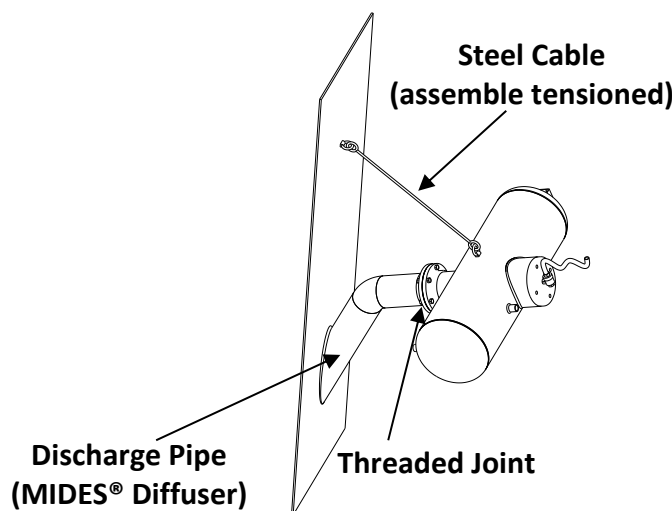
Special diffusers are made of cast stainless steel (DIN 2520), used for sites with high temperatures; these shall be installed and embedded in refractories and as outlined in the project.

See some simplified examples below:



3.3 SAFETY CABLE

The MIDES[®] Air Blaster shall be fastened only by joining it with the discharge pipe and the duly tensioned steel cable. Use a tightener on the steel cable to facilitate maintenance and adjusting its tension. **NEVER FASTEN RIGIDLY.**

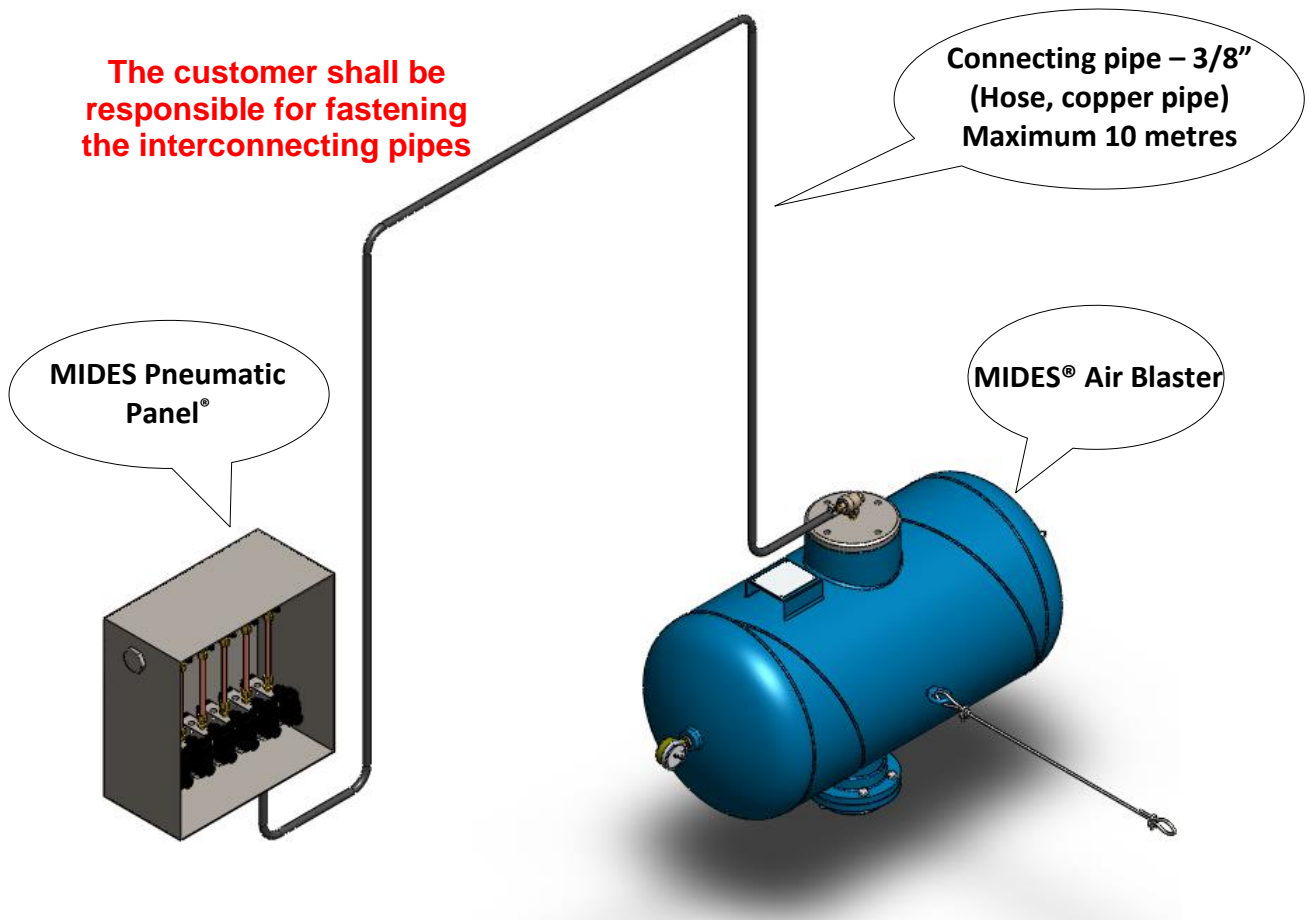




Note: The MIDES® Air Blaster fastened with clamps or using a type of fastener other than the one given can entail irreparable damage to the equipment.

- In those points where the blasters are installed, make sure the compressed air installations keep to the pressures shown in the project.
- Compressed air shall be fed into the MIDES® Air Blaster using flexible or rigid pipes.

See below for details on how to interconnect the equipment:



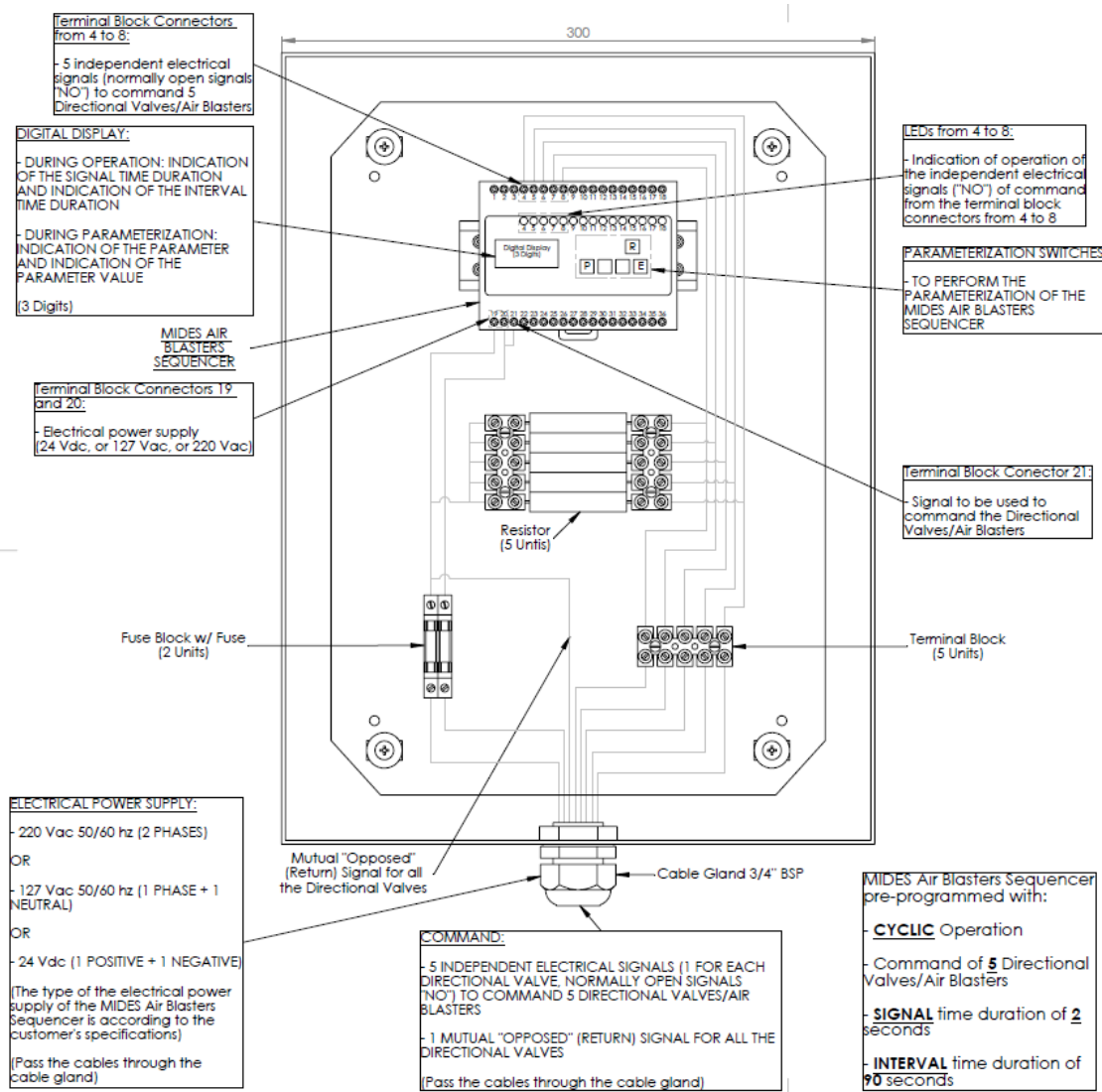
Note: Compressed air shall be clean, that is, free of impurities such as oil, water and particles. The pressure of compressed air shall keep to the minimum pressure shown in the project, and the working range shall be 5.0 to 7.0 bar (ideally, 7.0 bar).

- At installations in areas with high temperatures, keep a distance of no less than 300 mm from the hot surface near the equipment, along with the compressed air and actuating (control) pipes.

4. ELECTRICAL CONTROLS – MIDES[®] PLC

The blasters' electrical control (directional valve actuation control) comprises a MIDES[®] Cyclical Timing Trigger Device (MIDES[®] PLC). Manual and wiring diagram for this device are provided separately.

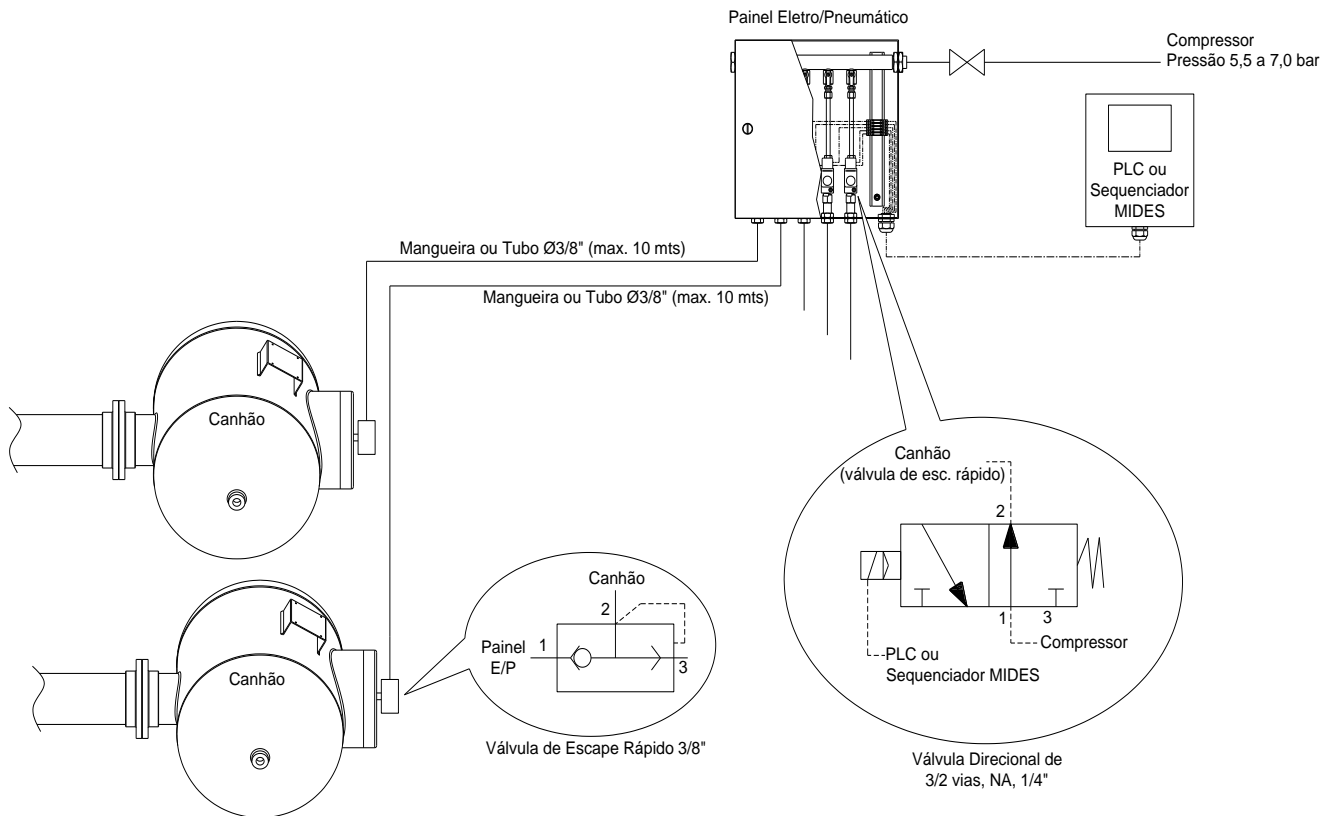
Note: To electrically activate the equipment and adjust the operating logic, MIDES[®] recommends using the customer's PLC. If the customer does not have a PLC, the MIDES[®] sequencing device shall be considered.



4.1 MIDES[®] PLC TECHNICAL SPECIFICATION

Specification:	Value:	Note:
Voltage	24 Vdc 127 Vac 50/60 hz 220 Vac 50/60 hz	To be notified by the customer
Pulse time	1 to 99.9 seconds 1 to 99.9 minutes 1 to 99.9 hours	Pre-programmed by MIDES with 2 seconds, this can be programmed in situ, as needed
Time Span	1 to 99.9 seconds 1 to 99.9 minutes 1 to 99.9 hours	Pre-programmed by MIDES with 90 seconds, this can be programmed in situ, as needed
No. of MIDES[®] Air Blasters	1 - 15 MIDES [®] Air Blasters	Pre-programmed as the customer requires

5. GENERAL CONNECTION FLOWCHART





6. OPERATION

MIDES® Air Blasters can be operated either in preventive or corrective mode:

=> **PREVENTIVE:** The operation's ideal and recommended condition, with automatic control built into the operating system. This enables making sure the blasters operate at the right moment, without the need for human intervention.

=> **CORRECTIVE:** Normally with manual or semi-automatic control, where the operator shall activate the equipment whenever necessary. Normally used in situations where blockages occur occasionally and the possibility of using automatic activation is nil.

Note: It's important to bear in mind that, for both operating situations given above, the equipment shall go off at least once a day, and shall also remain pressurised. Depressurise them only in the event of maintenance or intervention where they operate.

The following points must be observed regarding the system's operation and safety:

- At installations where the air blasters are in place, make sure the compressed air is connected and within the pressures shown in the project. When the equipment is depressurised, it can entail the return of material and gases back into the vessel via the discharge pipe.

Always keep the air blasters pressurised, and depressurise them only in the event of maintenance or intervention where they operate.



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- The air blasters must not be triggered (activated) when the site where they are installed is not in operation. In the case of silos and hoppers, make sure the material extraction system is in operation and the discharge site is open; otherwise, the blaster's trigger could entail the material's compacting close to the discharge outlet. **Intersperse the air blasters' trigger system with the material's discharge system.**

- **CAUTION: Turn off the compressed air and depressurise the air blasters before starting any maintenance work.**

Other technical and safety information is provided together with the installation project, such as the use of compressed air, working pressure, trigger cycles, trigger intervals, triggering sequence and suggestions provided on safety signalling plates.



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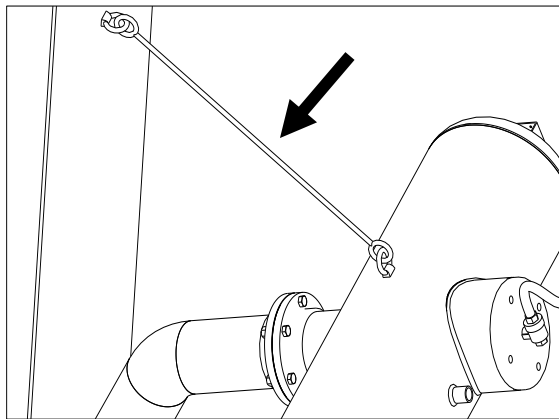
7. MAINTENANCE

For more details regarding the parts given below, see enclosed (annex 1), in drawing 09.450.000.010, the general list of parts of model 6AT.

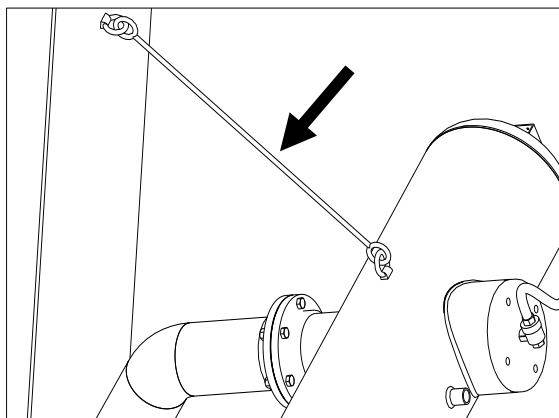
Note: If necessary, replace the MIDES[®] 6TMM Valve (Pos.44) with the MIDES[®] 6AT Valve (also Pos.44). The quick exhaust valve (Pos.56) shall be provided as required by the customer, as 1/4" or 3/8" (if the main valve is still 6TMM) or 3/8" (if the main valve is now 6AT).

7.1 CHECKING THE ASSEMBLY

- Suspension cable (Pos.30): Check cable tension

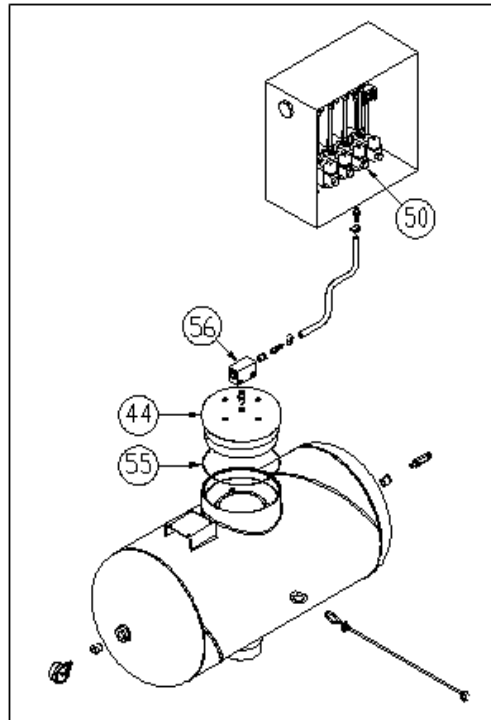


- Threaded Joint (Pos. 35): Check whether the protective seal has been removed and whether the screws are properly tightened.



7.2. CHECKING THE MIDES[®] AIR BLASTER

This equipment does not require preventive maintenance, and, if necessary, switch positions 44(*) (6TMM and 6AT valve), 56 (3/8" quick exhaust valve) and 50 (3/2-way directional valve).



(*) – The 6TMM and 6AT valve is fully encased, and its useful life exceeds 3 years. This valve comes with a full 3-year warranty and if there is an issue during this period, MIDES[®] shall replace it at no extra charge, provided the issue is workmanship- or material-related, as defects caused by equipment misuse are not covered under this warranty. You are advised to replace it before its 4th full year of use.

REM: When replacing or disassembling the 6TMM and 6AT valve, it shall be re-assembled/checked as per the procedure found under item 9 of this manual.



In the event of leakage, check the parts identified under positions 44, 55 as well as every connection in the vessel (see drawing above). The part under position 44 shall be re-tightened as needed, while the part under position 55 shall be replaced, if necessary.

REM: This equipment does not require lubrication. You are advised to completely remove water, oil and particles from the air line.

Pieces of equipment with valves model 6TMM and 6AT come with a 3-year warranty, and this valve is fully encased. None of its internal elements are replaced.



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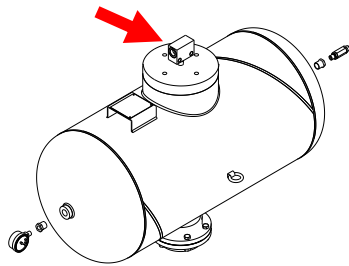
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- **Quick Exhaust Valve MIDES – pos. 56:** Check filter and working order.



3/8" valve
For blasters with a 6AT valve
(Valve w/ exhaust filter)



For blasters with
a 6TMM valve

- **Adhesive with safety instructions – pos. 28:** Contain important information regarding equipment safety. If disabled, MIDES will need to provide a new adhesive to replace the damaged one. For more details concerning this adhesive, see item 8 of this manual.

<p>MODEL</p> <p>6TMM/6AT</p>	<p>DESCRIPTION AND APPLICATIONS</p> <p>- Main Valve manufactured in metal/metal with control valve mounted on ElectroPneumatic Piston.</p> <p>- Ideal for places with aggressive environments and with high temperature incidence (internal or external).</p> <p>OPERATIONAL TECHNICAL DATA:</p> <ul style="list-style-type: none"> - Always keep the equipment pressurized. Only depressurize them in maintenance and safety situations. - Carry out at least one shot per day (self cleaning procedure). - Recommended Working Pressure between 70 psi and 100 psi (PMTA – 115 psi). - Recommended filtered compressed air, free of particles, oil and water. - Does not require line lubrication (no need for lubricant in the pneumatic line). - Electric pulse of solenoid coil drive: 0.8 seconds.
<p>REQUIREMENTS FOR COMPLIANCE WITH WARRANTY</p> <p>Notes: In case of need to change these parameters, more or less, the manufacturer should be consulted immediately.</p> <ul style="list-style-type: none"> - Directional Valve 3/2 way: Actuation Time: 0.8 seconds - Interconnection Tubing: Maximum diameter: 7/16" Recommended length = 25 ft. Maximum Length = 48 ft. - Safety Cable: It must be mounted. - Discharge Pipe: 3/4" Maximum length: 500 mm. 	
<p>DANGER</p> <p>EQUIPMENT PRESSURIZED</p> <ul style="list-style-type: none"> - Turn off / Close compressed air and depressurize equipment before starting any maintenance or inspection service (on the equipment or where installed). - Use of protective equipment in the case of installations that can expel gases or hot material. - Make sure that safety valves and pressure gauges coupled to the vessel work properly (use in accordance with current safety and manufacturing standards). 	

- **Adhesive containing manufacturer identification – pos. 29:** Contains data on the manufacturer, such as address and contacts. If disabled, MIDES will need to provide a new adhesive to replace the damaged one.





REM: THE COMPRESSED AIR LINE SHALL BE COMPLETELY FREE OF ANY OIL, WATER AND PARTICLES. ALWAYS KEEP THE EQUIPMENT PRESSURISED, TO BE DEPRESSURISED ONLY IN THE EVENT OF MAINTENANCE OR INTERVENTION WHERE SAID EQUIPMENT OPERATES. THE EQUIPMENT SHALL GO OFF AT LEAST ONCE A DAY.



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8. GENERAL USE AND SAFETY INSTRUCTIONS

- Project Code: ASME BPVC, Sec. VIII Div. 1, Sec. II Part D, Sec. IX, Ed. 2010, 2011a Addenda.
- Safety Standard: NR-13.
- Quality Certification: ISO 9001:2008, 30 CFR 75.1730

MIDES Indústria e Comércio Ltda

MODEL	DESCRIPTION AND APPLICATIONS
6TMM/6AT	<ul style="list-style-type: none"> - Main Valve manufactured in metal/metal with control valve mounted on Electro/Pneumatic Panel. - Ideal for places with aggressive environments and with high temperature incidence (internal or external).

OPERATIONAL TECHNICAL DATA:

- Always keep the equipment pressurized. Only depressurize them in maintenance and safety situations.
- Carry out at least one shot per day (self cleaning procedure).
- Recommended Working Pressure between 79 psi and 100 psi (**PMTA = 115 psi**).
- Recommended filtered compressed air, free of particles, oil and water.
- **Does not require line lubrication** (no need for lubricant in the pneumatic line).
- Electric pulse of solenoid coil drive: 0.8 seconds.

DANGER

REQUIREMENTS FOR COMPLIANCE WITH WARRANTY

Note:
In case of need to change these parameters, more or less, the manufacturer should be consulted immediately.

- Directional Valve 3/2 ways:**
 - Actuation Time = 0,8 seconds
- Interconnection Tubing:**
 - Maximum Diameter = 3/8"
 - Recommended length = 26 ft
 - Maximum Length = 48 ft
- Safety Cable:**
 - It must be mounted
- Discharge Pipe Ø4"**
 - Maximum Length = 500 mm

EQUIPMENT PRESSURIZED

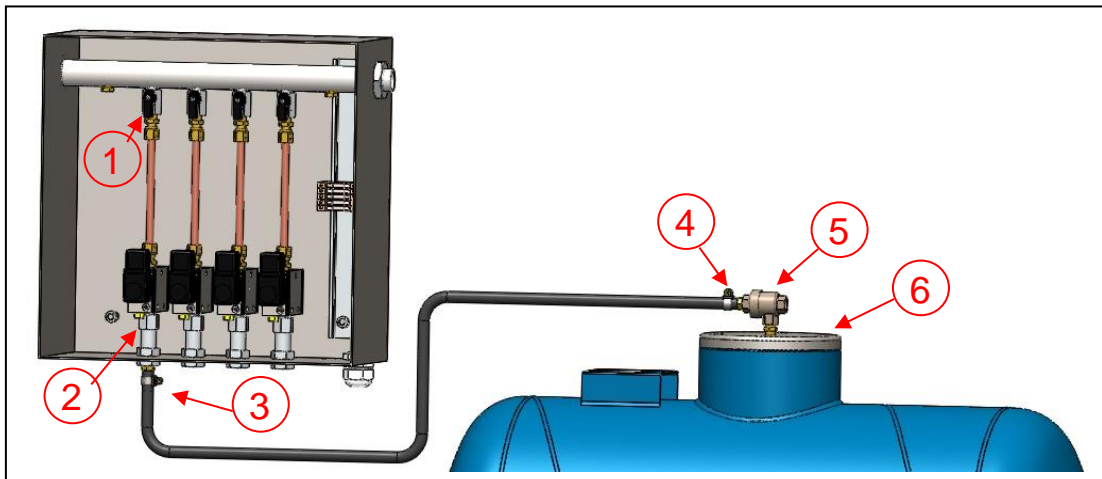
- Turn off / Close compressed air and depressurize equipment before starting any maintenance or inspection service (on the equipment or where installed).
- Use of protective equipment in the case of installations that can expel gases or hot material.
- Make sure that safety valves and pressure gauges coupled to the vessel work properly (use in accordance with current safety and manufacturing standards).

9. CHECKING PROCEDURE – 6TMM and 6AT VALVE.

If necessary, the goal of this procedure is to check, diagnose and maintain the 6TMM and 6AT valve.

9.1 - Identifying faults

The other parts that make up the system shall be checked. See below for details on how to identify faults:



1. With the equipment still under pressure, close the equipment infeed via the inlet valve (figure 1).

2. Manually activate the 3/2-way directional valve (figure 2 – look for the yellow part). Repeat the same test by activating the reel (electrical activation).

=> If the equipment triggers normally, it works problem-free.

=> If the equipment does not trigger, move on to the next step.

3. Also with the equipment still under pressure and the inlet valve closed (figure 1), loosen the connecting clamp from the hose to the pneumatic panel (figure 3). Firmly hold the hose so that it does not come loose. After loosening the clamp, quickly pull out the hose, by removing it from the connection point. This procedure will cause the equipment to go off.

=> If the equipment triggers normally, the fault lies with the 3/2-way directional valve.

=> If the equipment does not trigger, move on to the next step.



4. Also with the equipment still under pressure and the inlet valve closed (figure 1), loosen the connected clamp from the quick exhaust valve (figure 4) and repeat the same procedure as the previous step.

=> If the equipment triggers normally, the fault lies with the directional valve, as it is unable to bleed the air found in the hose, or the hose contains flow problems.

=> If the equipment does not trigger, move on to the next step.

5. Remove the quick exhaust valve (figure 5) and connect the hose directly to the blaster (in the 6TMM or 6AT valve). Re-pressurise the equipment and close the inlet valve (figure 1). Repeat the clamp-loosening procedure under step 4.

=> If the equipment triggers normally, the fault lies with the quick exhaust valve.


=> If the equipment does not trigger, move on to the next step.

6. Depressurise the equipment and proceed as explained below, under item 9.2.

Note: These procedures under 9.1 are valid only if the equipment is stopped and pressurised. If the equipment is not under pressure, evaluate every valve (3/2-way directional valve – figure 2 and quick exhaust valve – figure 5) to make sure there is a passage for compressed air. If this happens, start off by checking the 6AT valve from item 9.2.



9.2 Checking the 6TMM or 6AT Valve

	
<p>Using the appropriate tool (provided by MIDES), remove the 6TMM or 6AT valve.</p>	<p>Remove the 6TMM or 6AT valve, and be careful not to drop it.</p>
<p>Note: Since the valve is chemically sealed, it may be necessary to break that seal; to that end, if necessary, use an extension on the tool to increase the moment of force, to remove the valve. Avoid striking the valve.</p>	<p>Note: Dropping this valve can cause irreparable damage</p>

After removing the valve, take it to a workbench and proceed according to the instructions below:

Note: Do not perform any cleaning operation on the part before proceeding as shown below.

- As shown in the sequence below (from left to right), use your fingers to press the “Main Piston” and the “Secondary Piston” of the 6TMM or 6AT valve. Repeat this procedure several times.



- When moving the components of this valve, as shown in the sequence above, proceed according to the following instructions.

=> After moving the “main piston” and the “secondary piston,” if no sign of gripping is felt/found in those parts, the valve is in perfect working condition; therefore, this valve can be cleaned and reinstalled. Perform the cleaning operation as shown below.

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Perform the cleaning operation on the valve and the seat (in the vessel), only between the lines given

Note: Clean only with a damp cloth. **Never use abrasive material or sandpaper when cleaning.**

If, after moving the “main piston,” a sign of gripping is felt/found, this indicates that there is foreign matter inside; therefore, proceed as shown below.

Wash the valve in running water, as shown in the images opposite.

Note: Move the “main piston” upward, to get water moving inside the valve.



If necessary, use a small amount of liquid soap.

Note: Move the “main piston” upward, to get water moving inside the valve.



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Perform the washing procedure, also by inserting water through the upper hole.

Note: Move the “main piston” upward, to get water moving inside the valve.



After washing and rinsing the valve, blow compressed air into it.

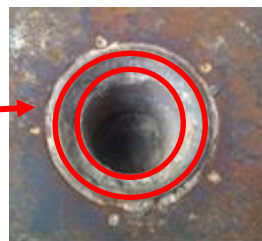
Note: Blow below, as shown.

REM: NEVER CONNECT COMPRESSED AIR IN THE UPPER HOLE AND PRESSURISE THE VALVE WHILE IT IS DISASSEMBLED.



- After conducting the inspections given above, re-assemble the valve in the vessel and test its efficiency (filling and triggering).

Even after performing every check, if the 6TMM or 6AT valve still shows operating problems, check for any excess material accumulated in the middle hole of the “Main Piston,” as shown in the photo below.



The images opposite show the middle hole of the “main piston” in the 6TMM or 6AT valve, with considerable accumulation of material.

In the detail, it is possible to see the thickness of accumulated material between the lines.



Note: Check the reason for the material backflow in this part. There are likely vessel positioning problems, the installation's inclination – see page 8, item 3.1.

If material is found as shown, the part shall be carefully cleaned without touching the “secondary piston.” Clean using a screwdriver or any other similar tool. Washing and/or blowing on the part to remove material after cleaning.

=> After installing the valve, if the blaster does not fill up, contact MIDES immediately to assess and replace the valve, if necessary.

=> If the blaster does not trigger after pressurising, contact MIDES immediately to assess and replace the valve, if necessary.

Notes:



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1. If the 6TMM or 6AT valve is shown to be defective and no longer under warranty, they shall be replaced. Just a reminder **that the valve comes with a 3-year warranty** and warranty data are engraved – see image. For any questions, contact MIDES immediately.



- Serial Number
e.g.: V256

If the valve does not come with the data shown in the photo opposite, forward the blaster's serial number, which appears on the identification plate, to MIDES– see page 18 , POS.27

2. Defects caused by equipment misuse are not covered by the warranty.
3. Valves with working problems, due to a malfunction of any internal element, shall be replaced following a technical assessment, via a technical visit or photos sent to a MIDES staff member in charge.



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10. GENERAL INFORMATION

10.1 Checking the MIDES Air Blaster's Working

The blaster's working and its efficiency are identified only from the behaviour of the vessel's pressure gauge.

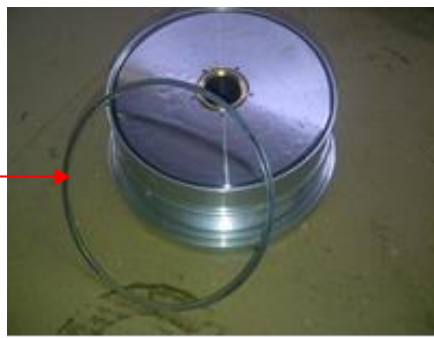
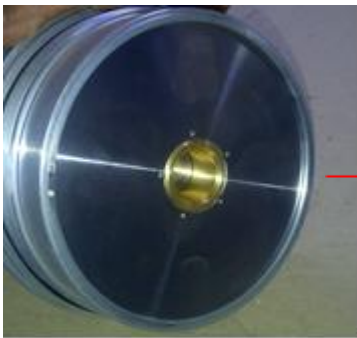


Verification of efficiency in the blaster's trigger is measured by the vessel's instantaneous emptying; that is, the value of the pressure measured on the pressure gauge shall instantaneously drop to zero or too close to zero after the trigger. Any observation differing from this means that there is a working deficiency. **The pressure gauge shall always be in proper working condition.**

Note: The 6TMM and 6AT blaster have a very low noise level compared to other pieces of equipment. The noise caused by said equipment must not be used as an efficiency and working parameter.

10.2 6TMM and 6AT Valve Seal

Never remove the 6AT valve locking seal; otherwise, this will void the warranty.



Note: A broken locking seal shall be immediately reported to MIDES.



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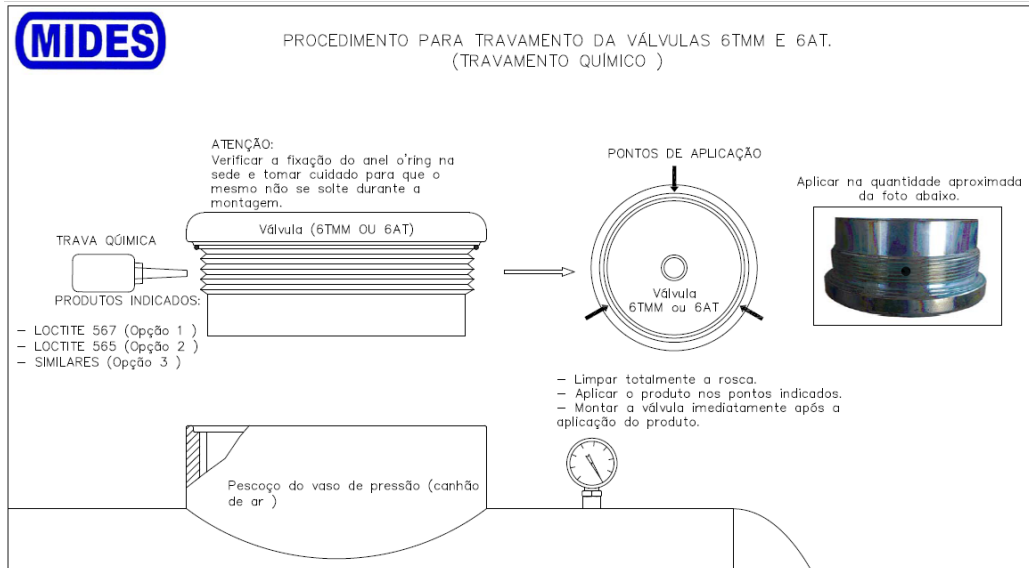
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10.3 6TMM or 6AT Valve Chemical Adhesive

Use an Chemical adhesive when assembling the 6TMM or 6AT valve, as shown below.



Note: Not using the adhesive could entail loosening the valve and, as a result, working problems such as emptying of the Air Blaster and breaking the 6TMM or 6AT Valve seal.

10.4 Loosening the 6TMM or 6AT Valve

Check for loosening issues in the installation of the 6TMM or 6AT valves. If this issue occurs, locks the valves as per the preceding item.



Just a reminder that said loosening does not entail a safety risk, but only a risk to the equipment's proper working.

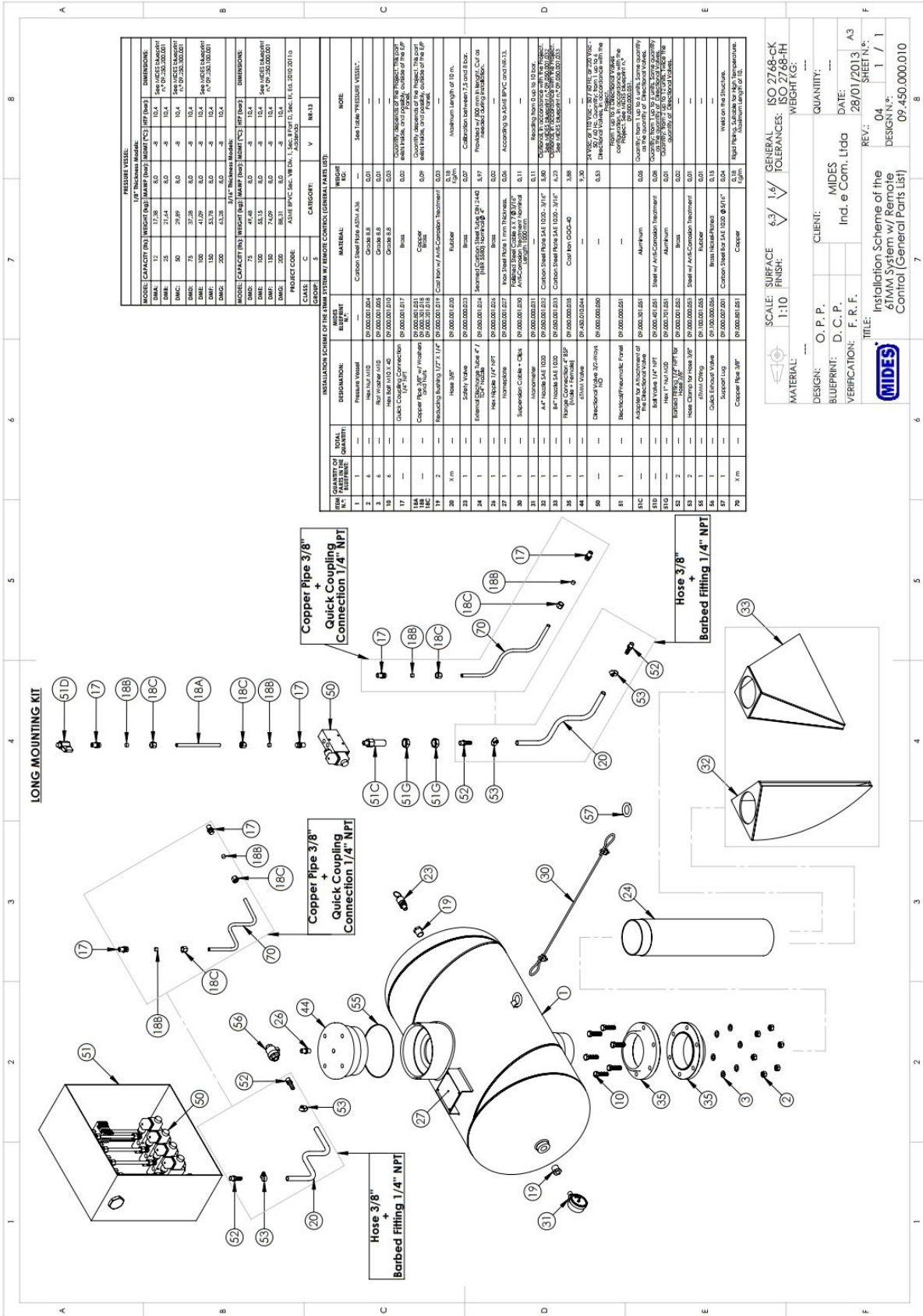
The adhesive procedure shall be applied as directed under item 10.3



10.5 Triggering the MIDES Air Blaster model 6TMM or 6AT

Always keep the equipment under pressure, and depressurise them only in the event of maintenance or intervention where they operate. You are advised to have the equipment go off at least once a day

ANNEX 1 – GENERAL PARTS LIST



PRESSURE VESSEL		1/8" Thickness Model:	
MODEL	CAPACITY (lit)	WEIGHT (kg)	HEIGHT (mm)
D12	12	21.24	10.4
D15	15	29.89	10.4
D18	18	37.28	10.4
D21	21	43.78	10.4
D24	24	53.78	10.4
D27	27	63.78	10.4
D30	30	73.78	10.4
D33	33	83.78	10.4
D36	36	93.78	10.4
D39	39	103.78	10.4
D42	42	113.78	10.4
D45	45	123.78	10.4
D48	48	133.78	10.4
D51	51	143.78	10.4
D54	54	153.78	10.4
D57	57	163.78	10.4
D60	60	173.78	10.4
D63	63	183.78	10.4
D66	66	193.78	10.4
D69	69	203.78	10.4
D72	72	213.78	10.4
D75	75	223.78	10.4
D78	78	233.78	10.4
D81	81	243.78	10.4
D84	84	253.78	10.4
D87	87	263.78	10.4
D90	90	273.78	10.4
D93	93	283.78	10.4
D96	96	293.78	10.4
D99	99	303.78	10.4
D102	102	313.78	10.4
D105	105	323.78	10.4
D108	108	333.78	10.4
D111	111	343.78	10.4
D114	114	353.78	10.4
D117	117	363.78	10.4
D120	120	373.78	10.4
D123	123	383.78	10.4
D126	126	393.78	10.4
D129	129	403.78	10.4
D132	132	413.78	10.4
D135	135	423.78	10.4
D138	138	433.78	10.4
D141	141	443.78	10.4
D144	144	453.78	10.4
D147	147	463.78	10.4
D150	150	473.78	10.4
D153	153	483.78	10.4
D156	156	493.78	10.4
D159	159	503.78	10.4
D162	162	513.78	10.4
D165	165	523.78	10.4
D168	168	533.78	10.4
D171	171	543.78	10.4
D174	174	553.78	10.4
D177	177	563.78	10.4
D180	180	573.78	10.4
D183	183	583.78	10.4
D186	186	593.78	10.4
D189	189	603.78	10.4
D192	192	613.78	10.4
D195	195	623.78	10.4
D198	198	633.78	10.4
D201	201	643.78	10.4
D204	204	653.78	10.4
D207	207	663.78	10.4
D210	210	673.78	10.4
D213	213	683.78	10.4
D216	216	693.78	10.4
D219	219	703.78	10.4
D222	222	713.78	10.4
D225	225	723.78	10.4
D228	228	733.78	10.4
D231	231	743.78	10.4
D234	234	753.78	10.4
D237	237	763.78	10.4
D240	240	773.78	10.4
D243	243	783.78	10.4
D246	246	793.78	10.4
D249	249	803.78	10.4
D252	252	813.78	10.4
D255	255	823.78	10.4
D258	258	833.78	10.4
D261	261	843.78	10.4
D264	264	853.78	10.4
D267	267	863.78	10.4
D270	270	873.78	10.4
D273	273	883.78	10.4
D276	276	893.78	10.4
D279	279	903.78	10.4
D282	282	913.78	10.4
D285	285	923.78	10.4
D288	288	933.78	10.4
D291	291	943.78	10.4
D294	294	953.78	10.4
D297	297	963.78	10.4
D300	300	973.78	10.4
D303	303	983.78	10.4
D306	306	993.78	10.4
D309	309	1003.78	10.4
D312	312	1013.78	10.4
D315	315	1023.78	10.4
D318	318	1033.78	10.4
D321	321	1043.78	10.4
D324	324	1053.78	10.4
D327	327	1063.78	10.4
D330	330	1073.78	10.4
D333	333	1083.78	10.4
D336	336	1093.78	10.4
D339	339	1103.78	10.4
D342	342	1113.78	10.4
D345	345	1123.78	10.4
D348	348	1133.78	10.4
D351	351	1143.78	10.4
D354	354	1153.78	10.4
D357	357	1163.78	10.4
D360	360	1173.78	10.4
D363	363	1183.78	10.4
D366	366	1193.78	10.4
D369	369	1203.78	10.4
D372	372	1213.78	10.4
D375	375	1223.78	10.4
D378	378	1233.78	10.4
D381	381	1243.78	10.4
D384	384	1253.78	10.4
D387	387	1263.78	10.4
D390	390	1273.78	10.4
D393	393	1283.78	10.4
D396	396	1293.78	10.4
D399	399	1303.78	10.4
D402	402	1313.78	10.4
D405	405	1323.78	10.4
D408	408	1333.78	10.4
D411	411	1343.78	10.4
D414	414	1353.78	10.4
D417	417	1363.78	10.4
D420	420	1373.78	10.4
D423	423	1383.78	10.4
D426	426	1393.78	10.4
D429	429	1403.78	10.4
D432	432	1413.78	10.4
D435	435	1423.78	10.4
D438	438	1433.78	10.4
D441	441	1443.78	10.4
D444	444	1453.78	10.4
D447	447	1463.78	10.4
D450	450	1473.78	10.4
D453	453	1483.78	10.4
D456	456	1493.78	10.4
D459	459	1503.78	10.4
D462	462	1513.78	10.4
D465	465	1523.78	10.4
D468	468	1533.78	10.4
D471	471	1543.78	10.4
D474	474	1553.78	10.4
D477	477	1563.78	10.4
D480	480	1573.78	10.4
D483	483	1583.78	10.4
D486	486	1593.78	10.4
D489	489	1603.78	10.4
D492	492	1613.78	10.4
D495	495	1623.78	10.4
D498	498	1633.78	10.4
D501	501	1643.78	10.4
D504	504	1653.78	10.4
D507	507	1663.78	10.4
D510	510	1673.78	10.4
D513	513	1683.78	10.4
D516	516	1693.78	10.4
D519	519	1703.78	10.4
D522	522	1713.78	10.4
D525	525	1723.78	10.4
D528	528	1733.78	10.4
D531	531	1743.78	10.4
D534	534	1753.78	10.4
D537	537	1763.78	10.4
D540	540	1773.78	10.4
D543	543	1783.78	10.4
D546	546	1793.78	10.4
D549	549	1803.78	10.4
D552	552	1813.78	10.4
D555	555	1823.78	10.4
D558	558	1833.78	10.4
D561	561	1843.78	10.4
D564	564	1853.78	10.4
D567	567	1863.78	10.4
D570	570	1873.78	10.4
D573	573	1883.78	10.4
D576	576	1893.78	10.4
D579	579	1903.78	10.4
D582	582	1913.78	10.4
D585	585	1923.78	10.4
D588	588	1933.78	10.4
D591	591	1943.78	10.4
D594	594	1953.78	10.4
D597	597	1963.78	10.4
D600	600	1973.78	10.4
D603	603	1983.78	10.4
D606	606	1993.78	10.4
D609	609	2003.78	10.4
D612	612	2013.78	10.4
D615	615	2023.78	10.4
D618	618	2033.78	10.4
D621	621	2043.78	10.4
D624	624	2053.78	10.4
D627	627	2063.78	10.4
D630	630	2073.78	10.4
D633	633	2083.78	10.4
D636	636	2093.78	10.4
D639	639	2103.78	10.4
D642	642	2113.78	10.4
D645	645	2123.78	10.4
D648	648	2133.78	10.4
D651	651	2143.78	10.4
D654	654	2153.78	10.4
D657	657	2163.78	10.4
D660	660	2173.78	10.4
D663	663	2183.78	10.4
D666	666	2193.78	10.4
D669	669	2203.78	10.4
D672	672	2213.78	10.4
D675	675	2223.78	10.4
D678	678	2233.78	10.4
D681	681	2243.78	10.4
D684	684	2253.78	10.4
D687	687	2263.78	10.4
D690	690	2273.78	10.4
D693	693	2283.78	10.4
D696	696	2293.78	10.4
D699	699	2303.78	10.4
D702	702	2313.78	10.4
D705	705	2323.78	10.4
D708	708	2333.78	10.4
D711	711	2343.78	10.4
D714	714	2353.78	10.4
D717	717	2363.78	10.4
D720	720	2373.78	10.4
D723	723	2383.78	10.4
D726	726	2393.78	10.4
D729	729	2403.78	10.4
D732	732	2413.78	10.4
D735	735	2423.78	10.4
D738	738	2433.78	10.4
D741	741	2443.78	10.4
D744	744	2453.78	10.4
D747	747	2463.78	10.4
D750	750	2473.78	10.4
D753	753	2483.78	10.4
D756	756	2493.78	10.4
D759	759	2503.78	10.4
D762	762	2513.78	10.4
D765	765	2523.78	10.4
D768	768	2533.78	10.4</

